248 2239522 P.01/18

# ARTZ & ARTZ P.C. Law Offices

RECEIVED
CENTRAL FAX CENTER

FEB 2 8 2006

Intellectual Property and Technology Related Causes

# FACSIMILE TRANSMITTAL SHEET

(248) 223-9522

ARTZ ARTZ LAW OFFICES

Fax:

Phone: (248) 223-9500 TO: Mail Stop Appeal Brief-**Patents** FIRM: USPTO FAX NO.: (571) 273-8300 From: Kevin G. Mierzwa February 28, 2006 Date: Our File No.: FGT 1942 PA Your Ref. No. 10/711,368 Comments: Attached is Appeal Brief pursuant to Notice of Appeal dated 1/17/06. Total Pages (incl. Cover sheet): 18

The information contained in this facsimile message may be confidential and/or legally privileged information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any copying, dissemination or distribution of confidential or privileged information is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone, and we will arrange for the return of the facsimile. Thank you.

If there are any problems during transmission, please call: (248) 223-9500.

<u>Donna Kraft</u> (Operator)

28333 TELEGRAPH ROAD, SUITE 250, SOUTHFIELD, MICHIGAN 48034 TELEPHONE: (248) 223-9500 -- FACSIMILE: (248) 223-9532

FEB 2 8 2006

**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Patent Application of:

Mark A. Cuddihy

Serial No.

10/711,368

Art Unit:

2632

Filed:

09/14/2004

Examiner:

Nguyen, Tai T.

For:

CRASH NOTIFICATION SYSTEM FOR AN AUTOMOTIVE VEHICLE

Attorney Docket No:

**FGT 1942 PA** 

# CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being transmitted by facsimile to (571) 273-8300 (Centralized Facsimile Number).

Date: 2/29/06

Signature

Kevin G. Mierzwa

## **APPEAL BRIEF**

Mail Stop Appeal Brief – Patents Commissioner for Patents Box 1450 Alexandria, VA 22313-1450

Sir:

The following Appeal Brief is submitted in response to the Notice of Appeal dated January 17, 2006.

## I. Real Party in Interest

The real party in interest in this matter is Ford Global Technologies, LLC, which is a wholly owned subsidiary of Ford Motor Company both in Dearborn, Michigan (hereinafter "Ford").

# II. Related Appeals and Interferences

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

## III. Status of the Claims

Claims 1-29 stand rejected in the Final Office Action. A copy of the claims on appeal is attached as a Claims Appendix.

## IV. Status of Amendments

There have been no amendments filed subsequent to the final rejection.

# V. Summary of Claimed Subject Matter

The subject matter of Claim 1 is best described with respect to Figure 1 and the corresponding description beginning in paragraph 19 of the present application.

Claim 1 describes a crash notification system that is coupled to a communication network 22. The communication network is described in paragraph 18. Various examples of the communication network are set forth therein. The communication network is coupled to a response center 24. The response center 24 is set forth in the sentence bridging pages 5 and 6 in paragraph 18 of the present application. The system includes an occupant sensor 30 that is illustrated as 30A-30D. This is described in paragraph 19. The occupant sensors generate an occupant sensor status signal.

A front crash sensor 34 generating a front crash signal is also included in the system. Also, a side crash sensor 36A and 36B that generates a side crash signal is also set forth. The front crash sensors and the side crash sensors are described specifically in paragraph 21, lines 1-11.

A controller such as the restraint control module 18 is also included in the system. The restraint control module is coupled to the occupant sensors 30, the front crash sensor 34, and the side crash sensor 36. The controller determines an angular direction of force from the front crash signal and the side crash signal. The angular direction of force is described in the last six lines of paragraph 21. The controller generates a communication signal that is communicated

to the response center through the communication network. This is described in paragraph 24 and is specifically described in lines 1-3. The communication signal corresponds to the occupant sensor status signal and the angular direction of force.

Claim 2 recites that the occupant sensor comprises a front seat occupant sensor. This is described in lines 10-12 of paragraph 19.

Claim 3 recites that the occupant sensor comprises and rear seat occupant sensor. These are set forth as elements 30C and 30D and are described in lines 12-15 of paragraph 19.

Claim 4 recites that the occupant sensor comprises a front seat occupant sensor and a rear set occupant sensor. The basis for this is set forth in Claims 2 and 3 above.

Claim 5 recites a seat belt switch 32 that generates a seat belt status signal. The seat belt switches are described in paragraph 20 of the present application. The seat belt switches are communicated to the controller and the communications signal thus includes the occupant sensor status signal, the angular direction of force and the seat belt status symbol. Communicating the seat belt status is set forth in line 9 of paragraph 24.

Claim 6 depends from Claim 5 and recites that the seat belt switch comprises a front seat belt switch generating a front seat belt status symbol. The basis for this is the same as that of Claim 5.

Claim 7 depends from Claim 5 and recites that the seat belt switch comprises a rear seat belt switch that generates a rear seat belt status signal. This also has the same basis as that set forth above with respect to Claim 5.

Claim 8 recites that the seat belt switch comprises a front seat belt switch generating a front seat belt status symbol and a rear seat belt switch generating a rear seat belt status signal. The controller generates a communication signal that corresponds to the occupant sensor status signal, the rear seat belt status signal, the front seat belt status signal, and the crash status signal. The basis for this is set forth above in the same area as Claims 2, 3 and 5.

Claim 9 further recites a vertical acceleration sensor 46. The vertical acceleration sensor generates a vertical acceleration signal as is set forth in paragraph 22, lines 1-5. The vertical acceleration signal may be communicated to the controller to form the communication signal as is set forth in the sentence bridging pages 8 and 9.

Claim 10 recites that the vehicle includes a vehicle identification number memory having a vehicle identification number stored therein. The vehicle identification number memory is set forth as VIN memory 48 in paragraph 23, lines 1-4.

Claim 11 is an independent claim that is also directed to a crash notification system for a vehicle wherein the system is coupled to a communication network and a response center. Claim 11 also recites an occupant sensor generating an occupant sensor status signal that has been described above with respect to Claim 1. Claim 11 recites a vertical acceleration sensor that generates a vertical acceleration signal that is set forth in paragraph 22. The vertical acceleration sensor generates a vertical acceleration signal. A controller 14 generates a communication signal to the communication network 22. The controller determines a horizontal orientation of the vehicle relative to the road from the vertical acceleration signal as is described in lines 7-9 of paragraph 22. The controller generates a communication signal that is communicated to the response center through the communication network. The communication signal corresponds to the occupant sensor status signal and the horizontal orientation. The type of signal generated by the controller 14 is set forth in lines 3-10 of paragraph 24.

Claim 12 includes a vehicle identification number memory and recites that the communication signal includes a vehicle identification number. This is similar to Claim 10 above in therefore will not be discussed further.

Claim 13 recites that the crash notification system further includes a crash sensor that is coupled to the controller. The crash sensor generates a front crash signal, a side crash sensor generating a side crash signal, or both. The front crash sensor 34 and the side crash sensors 36 are illustrated in Figure 1 and are described in paragraph 21.

Claim 14 recites that the occupant sensor comprises a front seat occupant sensor and a rear seat occupant sensor, or both. The front seat occupant sensors are illustrated as 30A and 30B of Figure 1, and the rear occupant sensors are illustrated as 30C and 30D of Figure 1. The occupant sensors are specifically described in paragraph 19.

Claim 15 recites depends from Claim 11 and recites a further seat belt switch 32 that generates a seat belt status signal. The controller 14 generates a communication signal that corresponds to the occupant sensor status signal and the horizontal orientation and the seat belt status signal as is set forth in paragraph 24.

Claim 16 depends from Claim 15 and recites that the seat belt switch comprises a front seat belt switch 32A that generates a front seat belt status signal or a rear seat belt switch 32D that generates a rear seat belt status signal, or both. The seat belt switches are set forth in paragraph 20.

Claim 17 depends from Claim 11 and recites that the seat belt switch comprises a front seat belt switch generating a front seat belt status signal and a rear seat belt switch generating

a rear seat belt status signal. The controller generates a communication signal corresponding to the occupant sensor status signal, the rear seat belt status signal, the front seat belt status signal, and the horizontal orientation. The seat belt switches were described above with respect to Claim 16 and the type of communication generated by the controller 14 is set forth in paragraph 24.

Claim 18 is directed to a crash notification system for a vehicle. The system is coupled to a communication network 22 and a response center 24 as described above with respect to Claims 1 and 11. Claim 18 recites that the occupant sensor generates an occupant sensor status signal as is set forth in the previous claims and will not be described. Claim 18 further recites a vehicle identification number memory 48 that has a vehicle identification number stored therein. The vehicle identification number memory is set forth in paragraph 23.

The claim further recites a controller 14 that is coupled to the occupant sensor 30 and the vehicle identification number memory 48. The controller generates a communication signal that is communicated to the response center 24 through the communication network 22. The communication signal corresponds to the occupant sensor status signal and the vehicle identification number. The type of communications such as various signals as recited in Claim 18 are set forth in Claim 24.

Claim 19 recites that the response center generates a decoded vehicle signal in response to the vehicle identification signal. Signal decoding is set forth in the last four lines of paragraph 23 of the present application.

Claim 20 further recites a crash sensor coupled to the controller that comprises a front crash sensor generating a front crash signal, a side crash sensor generating a side crash signal, or both. This is similar to Claim 13 and will not be described further.

Claim 21 recites the occupant sensor comprises a front seat occupant sensor, a rear seat occupant sensor, or both. This is similar to Claim 14 and therefore will not be described further.

Claim 22 recites the front seat belt switch generates a seat belt status signal in a similar manner to that described above with respect to Claim 15. Therefore, this claim will also not be described further here.

Claim 23 recites that the seat belt switch comprises a front seat belt switch generating a front seat belt status signal or a rear seat belt switch generating a rear seat belt status signal, or both. This is similar to Claim 16 and has a similar basis.

Claim 24 recites that the rear seat belt switch comprises a front seat belt switch that generates a front seat belt status signal and a rear seat belt switch that generates a rear seat

belt status signal. The controller generates a communication signal that includes the occupant sensor status signal, the rear seat belt status signal, the front seat belt status signal, and the vehicle identification number. This is similar to Claim 17 except for the makeup of the communication signal which is set forth in paragraph 24.

Claim 25 is best described with respect to Figures 2 and 3 of the present application. Claim 25 recites generating an occupant sensor status signal that is set forth in paragraph 27 and is illustrated in step 62 of Figure 2. Claim 25 also recites generating a crash signal. The crash signal is generated in step 66 and set forth in Figure 2 and lines 10-11 of paragraph 27.

Claim 25 also recites generating a vehicle position signal. The vehicle position signal is obtained in step 90 of Figure 3 and is described in lines 1-5 of paragraph 33.

Claim 25 further recites generating a communication signal as a function of the occupant sensor status signal, the crash status signal, and the vehicle position signal. This is described in paragraph 24 of the present application. The communication signal is transmitted to the response center through a communication network. This is also set forth in paragraph 24 of the present application. This is also set forth in step 72 of Figure 2 and lines 18-25 of paragraph 28.

Claim 25 further recites at the response center, determining the nearest public service answering point in response to the vehicle position. This is set forth in step 92 of Figure 3 and paragraph 33, lines 5-10.

Claim 25 further recites contacting the public service answering point as a native caller as is set forth in step 94. Step 94 of Figure 3 is specifically described in lines 9-25 of paragraph 33.

Claim 26 is a dependent claim depending from Claim 25 and recites coupling the communication signal to the public service answering point and displaying the crash status and occupant sensor status. This is set forth in the last two sentences of paragraph 33.

Claim 27 further recites that generating a crash signal comprises generating a front crash signal and a side crash signal and determining an angular direction of force from the front crash signal and the side crash signal. This is similar to Claim 1 described above and is set forth in the last two sentences of paragraph 21.

Claim 28 depends from Claim 25 and recites determining a vertical acceleration signal as is set forth in paragraph 22 and is illustrated by the vertical acceleration sensor 46 of Figure 1. The vertical acceleration signal is communicated in the communication signal as described in Claim 11. The basis for this is set forth above and will not be described further.

Claim 29 recites further transmitting the vehicle identification number to the response center. This is set forth in paragraph 23. Claim 29 also recites decoding the vehicle identification number into vehicle information and providing the vehicle information to the public service answering point. The decoding of the vehicle identification number is set forth in the last sentence of paragraph 23. The information provided at the public service answering point from the vehicle identification number is described in the last three sentences of paragraph 33.

# VI. Grounds of Rejection to be Reviewed on Appeal

The following issues are presented in this appeal:

Whether Claim 25 is anticipated under 35 U.S.C. §102(b) by Aoshi (JP2000-285347)

Whether Claims 1-9, 11-17, and 27-28 are unpatentable under 35 U.S.C. §103(a) over Aoshi in view of Yanagi (JP 08-287386)

Whether Claims 10 and 18-24 are unpatentable under 35 U.S.C. §103(a) over *Aoshi* and *Yanagi* as applied to Claim 1 above in further view of *Tognazzini* (5,914,675)

Whether Claims 26 and 29 are unpatentable under 35 U.S.C. §103(a) over *Aoshi* in view of *Tognazzini* 

# VII. Argument

The Rejection of Claim 25 under 35 U.S.C. §102(b) as being anticipated by Aoshi (JP 2000-285347).

#### Claim 25

Claim 25, among other things, includes transmitting the communication signal to a response signal through the communication network, at the response center, determining the nearest public service answering point in response to the vehicle position, and contacting the public service answering point as a native caller.

Appellants respectfully submit that at least the last two steps are not taught or suggested in the *Aoshi* reference. The *Aoshi* reference makes no distinction between a native caller and a non-native caller. As mentioned in the specification of the present application, a native caller can be distinguished from a non-native caller by systems. Non-native callers get lower priority. The present application contacts the nearest public service answering point relative to the vehicle position and contacts the answering point as a native caller rather than a cellular-type caller, which has lower priority. The *Aoshi* reference makes no distinction and therefore Appellants respectfully submit that claim 25 is allowable. Because each and every element of Claim 25 is not found in the *Aoshi* reference, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claim 25.

# The Rejection of Claims 1-9, 11-17, and 27-28 under 35 U.S.C. §103(a) over *Aoshi* in view of *Yanagi* (JP 08-287386).

#### Claim 1

Claim 1 is directed to a system that determines a front crash signal, a side crash signal, and determines an angular direction of force from the front crash signal and the side crash signal. The *Aoshi* reference is set forth for detecting an occupant and generating an occupant sensor status signal. Appellants admit that an occupant status is set forth in the *Aoshi* reference. The *Aoshi* reference, however, does not teach or suggest the use of a front crash signal and a side crash signal to determine the direction of force.

The Examiner cites the *Yanagi* reference for this teaching. Although the orientation is set forth at the top of page 4 of the machine translated application, no teaching or suggestion is provided for determining the angular direction of force in a front crash signal and a side crash signal. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 1 as well.

#### Claims 2-4

Claims 2-4 stand or fall together with Claim 1.

### Claim 5

Claim 5 recites a seat belt switch generating a seat belt status signal. The controller generates a communication signal corresponding to the occupant sensor status signal, the angular direction of force and the seat belt status signal. As mentioned above, the angular direction of force is not set forth. Although the *Aoshi* reference teaches a seat belt fastening sensor, the seat belt fastening sensor is used to provide occupant information. In the abstract of the *Aoshi* reference the word "or" is used between seat belt sensor and the seat belt fastening sensor. Claim 1 requires both an occupant sensor and a seat belt switch. This takes into account the severity of occupants that were not wearing seat belts. Thus, since both an occupant sensor and a seat belt switch are not set forth in the *Aoshi* reference, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claim 5 as well.

# Claims 6-7

Claims 6 and 7 stand or fall together with Claim 5.

#### Claim 8

Claim 8 recites that the seat belt switch comprises a front seat belt switch and a rear seat belt switch. For the same reasons set forth above with respect to Claim 5, Claim 8 is also believed to be allowable. That is, because both a seat belt switch and an occupant sensor are not used together, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claim 8 as well.

#### Claim 9

Claim 9 recites a vertical acceleration sensor. The Examiner points to the Yanagi reference, reference numeral SF. However, the sensor SF is referred to as an attitude sensing sensor that detects unusual inclination of a car. Thus, it appears that no teaching or suggestion is provided for a vertical acceleration sensor which measures the vertical acceleration of the vehicle. The vertical acceleration of the vehicle is the direction perpendicular to the plane of the wheels of the vehicle. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 9 as well.

#### Claim 11

Claim 11 is an independent claim that teaches a vertical acceleration sensor generating a vertical acceleration signal. Claim 11 recites that the controller determines the horizontal orientation of the vehicle relative to a road from the vertical acceleration sensor. Appellants have reviewed both references and can find no teaching or suggestion of a vertical acceleration sensor detecting the horizontal orientation of the vehicle. Therefore, Appellants respectfully request the Board to reverse the rejection of Claim 11 as well.

#### Claim 12

Claim 12 recites a vehicle identification number memory having a vehicle identification number stored therein. The occupant sensor status signal includes the vehicle identification number, the vertical acceleration, and the angular direction of force. Neither of the references generate a communication signal that includes vertical acceleration, vehicle identification number and the angular direction of force. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 12.

# Claims 13-17

Claims 13-17 stand or fall together with Claim 11.

### **Claims 27-28**

Claims 27 and 28 depend from Claim 25. Claim 25 was rejected above with respect to the *Aoshi* reference. Appellants have also reviewed the *Yanagi* reference and can find no teaching or suggestion for contacting the public service answering point as a native caller. There is no distinguishing feature in either reference for the type of callers. Also, as mentioned above with respect to Claim 1, no angular direction of force is determined.

With respect to Claim 28, the *Yanagi* reference does not teach or suggest the use of a vertical acceleration sensor as described above in Claim 11. Therefore, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claims 27 and 28.

The rejection of Claims 10 and 18-24 under 35 U.S.C. §103(a) as being unpatentable over Aoshi and Yanagi as applied to claim 1 above in further view of Tognazzini (5,914,675)

#### Claim 10

Dependent Claim 10 depends upon Claim 1. Appellants respectfully believe that Claim 10 is also allowable for the same reasons set forth above.

#### Claim 18

Appellants admit that a vehicle ID memory 52a is illustrated in Fig. 1. However, the *Tognazzini* reference is directed to a system specifically designed for determining the location of a vehicle. There is no teaching or suggestion in the reference for providing the status of occupants therein. Neither the *Aoshi* reference nor the *Yanagi* reference teach or suggest the use of the vehicle identification number. Therefore, a controller that generates a communication signal that is communicated to a response signal through the communication network, said communication signal corresponding to said occupant sensor, status signal and the vehicle identification number is not taught or suggested. The *Tognazzini* reference is really a system for locating the device and/or the vehicle along with crash data therein. As is mentioned in the application, the device may be used for aircraft beacon-type systems. Thus, the *Tognazzini* reference is very different than the present notification systems. Therefore, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claim 18.

## Claim 19

Claim 19 recites that the response center generates a decoded vehicle signal in response to the vehicle identification signal. Although a decoded signal is set forth in the *Tognazzini* reference, no teaching or suggestion is provided for decoding in response to the

vehicle identification signal. Further, no teaching is provided in the *Tognazzini* reference for the combination of decoding a vehicle signal and the other elements set forth in Claim 18.

#### **Claims 18-24**

Claims 18-24 stand or fall together with Claim 18.

# The rejection of Claims 26 and 29 under 35 U.S.C. §103(a) over *Aoshi* in view of *Tognazzini*.

#### Claim 26

Claim 26 recites the step of coupling the communication signal to the public service answering point and displaying the crash status and the occupant sensor status. Claim 26 stands or falls together with Claim 25.

#### Claim 29

Claim 29 recites the steps of transmitting a vehicle identification number to the response center and decoding the vehicle identification number into vehicle information and providing vehicle information to the public service answering point. Appellants respectfully submit that no teaching or suggestion is provided for decoding the vehicle identification number into vehicle information and providing the vehicle information to the public service answering point. As mentioned above, the *Tognazzini* reference does not teach the decoding using the vehicle identification number. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to this claim as well.

## VIII. Claims Appendix

A copy of each of the claims involved in this appeal, namely Claims 1-29, is attached hereto as a Claims Appendix.

# IX. Evidence Appendix

None.

# X. Related Proceedings Appendix

None.

## XI. Conclusion

For the foregoing reasons, Appellant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge any fees required in the filing of this appeal to deposit account 06-1510 or, if there are insufficient funds, to use deposit account 06-1505.

Respectfully submitted,

Kevin G. Mierzwa

Registration No. 28,049 Attorney for Appellant

Artz & Artz, P.C.

Date:

28333 Telegraph Road, Suite 250 Southfield, Michigan 48034

(248) 223-9500

#### **CLAIMS APPENDIX**

- 1. A crash notification system coupled to a communication network having a response center comprising:
  - an occupant sensor generating an occupant sensor status signal;
  - a front crash sensor generating a front crash signal;
  - a side crash sensor generating a side crash signal; and
- a controller coupled to the occupant sensor and the front crash sensor and the side crash sensor, said controller determining an angular direction of force from the front crash signal and the side crash signal, said controller generating a communication signal that is communicated to the response center through the communication network, said communication signal corresponding to said occupant sensor status signal and the angular direction of force.
- 2. A crash notification system as recited in claim 1 wherein said occupant sensor comprises a front seat occupant sensor.
- 3. A crash notification system as recited in claim 1 wherein said occupant sensor comprises a rear seat occupant sensor.
- 4. A crash notification system as recited in claim 1 wherein said occupant sensor comprises a front seat occupant sensor and a rear seat occupant sensor.
- 5. A crash notification system as recited in claim 1 further comprising a seat belt switch generating a seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said angular direction of force and said seat belt status signal.
- A crash notification system as recited in claim 5 wherein said seat belt 6. switch comprises a front seat belt switch generating a front seat belt status signal.
- 7. A crash notification system as recited in claim 5 wherein said seat belt switch comprises a rear seat belt switch generating a rear seat belt status signal.

- 8. A crash notification system as recited in claim 1 wherein said seat belt switch comprises a front seat belt switch generating a front seat belt status signal and a rear seat belt switch generating a rear seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said rear seat belt status signal, said front seat belt status signal and said crash status signal.
- 9. A crash notification system as recited in claim 1 further comprising a vertical acceleration sensor generating a vertical acceleration signal, wherein said controller generates said communication signal corresponding to said occupant sensor status signal, the vertical acceleration sensor and the angular direction of force.
- 10. A crash notification system as recited in claim 1 further comprising a vehicle identification number memory having a vehicle identification number stored therein, said communication signal corresponding to said occupant sensor status signal, said vehicle identification number and the angular direction of force.
- 11. A crash notification system for a vehicle, said system coupled to a communication network having a response center comprising:

an occupant sensor generating an occupant sensor status signal;

- a vertical acceleration sensor generating a vertical acceleration signal; and
- a controller coupled to the occupant sensor and the vertical acceleration sensor, said controller determining a horizontal orientation of the vehicle relative to a road from the vertical acceleration sensor, said controller generating a communication signal that is communicated to the response center through the communication network, said communication signal corresponding to said occupant sensor status signal and the horizontal orientation.
- 12. A crash notification system as recited in claim 11 further comprising a vehicle identification number memory having a vehicle identification number stored therein, said communication signal corresponding to said occupant sensor status signal, said vertical acceleration, said vehicle identification number and the angular direction of force.
- 13. A crash notification system as recited in claim 11 further comprising a crash sensor coupled to said controller, said crash sensor comprises a front crash sensor generating a front crash signal, a side crash sensor generating a side crash signal or both.

- 14. A crash notification system as recited in claim 11 wherein said occupant sensor comprises a front seat occupant sensor, a rear seat occupant sensor, or both.
- 15. A crash notification system as recited in claim 11 further comprising a seat belt switch generating a seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said horizontal orientation and said seat belt status signal.
- 16. A crash notification system as recited in claim 15 wherein said seat belt switch comprises a front seat belt switch generating a front seat belt status signal or a rear seat belt switch generating a rear seat belt status signal, or both.
- 17. A crash notification system as recited in claim 11 wherein said seat belt switch comprises a front seat belt switch generating a front seat belt status signal and a rear seat belt switch generating a rear seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said rear seat belt status signal, said front seat belt status signal and said horizontal orientation.
- 18. A crash notification system for a vehicle, said system coupled to a communication network having a response center comprising:

an occupant sensor generating an occupant sensor status signal;

- a vehicle identification number memory having a vehicle identification number stored therein; and
- a controller coupled to the occupant sensor and the vehicle identification number memory, said controller generating a communication signal that is communicated to the response center through the communication network, said communication signal corresponding to said occupant sensor status signal and the vehicle identification number.
- 19. A crash notification system as recited in claim 18 wherein the response center generates a decoded vehicle signal in response to the vehicle identification signal.

- 20. A crash notification system as recited in claim 18 further comprising a crash sensor coupled to said controller, said crash sensor comprises a front crash sensor generating a front crash signal, a side crash sensor generating a side crash signal or both.
- 21. A crash notification system as recited in claim 18 wherein said occupant sensor comprises a front seat occupant sensor, a rear seat occupant sensor, or both.
- 22. A crash notification system as recited in claim 18 further comprising a seat belt switch generating a seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said horizontal orientation and said seat belt status signal.
- 23. A crash notification system as recited in claim 22 wherein said seat belt switch comprises a front seat belt switch generating a front seat belt status signal or a rear seat belt switch generating a rear seat belt status signal, or both.
- 24. A crash notification system as recited in claim 22 wherein said seat belt switch comprises a front seat belt switch generating a front seat belt status signal and a rear seat belt switch generating a rear seat belt status signal, said controller generating a communication signal corresponding to said occupant sensor status signal, said rear seat belt status signal, said front seat belt status signal and said vehicle identification number.
  - 25. A method of operating a crash notification system comprising: generating a occupant sensor status signal; generating a crash signal; generating a vehicle position signal;

generating a communication signal as a function of said occupant sensor status signal, crash status signal and the vehicle position signal;

transmitting the communication signal to a response center through the communication network;

at the response center, determining the nearest public service answering point in response to the vehicle position; and

contacting the public service answering point as a native caller.

P.18/18

- 26. A method as recited in claim 25 further comprising coupling the communication signal to the public service answering point and displaying the crash status and the occupant sensor status.
- 27. A method as recited in claim 25 wherein generating a crash signal comprises a front crash signal and a side crash signal; and, further comprising,

determining an angular direction of force from the front crash signal and the side crash signal.

- 28. A method as recited in claim 25 further comprising determining a vertical acceleration signal; determining a vertical acceleration and wherein generating a communication signal comprises generating the communication signal as a function of said occupant sensor status signal, crash status signal, the vehicle position signal and the horizontal orientation of the vehicle.
- 29. A method as recited in claim 25 further comprising transmitting a vehicle identification number to the response center; and

decoding the vehicle identification number into vehicle information; and providing the vehicle information to the public service answering point.